

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A manufacturing method of a hydroxyapatite complex including a hydroxyapatite sintered compact and a polymer-based material, comprising the step of:

a) reacting the hydroxyapatite sintered compact with an alkoxysilyl group of the polymer-based material, so as to chemically bond the hydroxyapatite sintered compact and the polymer-based material.

2. (Previously Presented) A manufacturing method of a hydroxyapatite complex including a hydroxyapatite sintered compact and a polymer-based material, comprising the steps of:

a) introducing an alkoxysilyl group into the polymer-based material; and

b) reacting the hydroxyapatite sintered compact with the alkoxysilyl group of the polymer-based material so as to chemically bond the hydroxyapatite sintered compact with the polymer-based material.

3. (Previously Presented) The manufacturing method of a hydroxyapatite complex as set forth in claim 2, wherein:

the step (a) is performed using a compound, that contains a reactive functional group and an alkoxysilyl group, so as to react the reactive functional group with the polymer-based material.

4. (Original) The manufacturing method of a hydroxyapatite complex as set forth in claim 3, wherein:

the compound is a silane coupling agent.

5. (Previously Presented) The manufacturing method of a hydroxyapatite complex as set forth in claim 2, further comprising the step of:

c) introducing an active group into the polymer-based material before the step (a),
wherein:

the step (a) is performed using a compound, that contains a reactive functional group and at least one functional group and an alkoxysilyl group, so as to react the reactive functional group with the active group of the polymer-based material.

6. (Original) The manufacturing method of a hydroxyapatite complex as set forth in claim 5, wherein:

the compound is a silane coupling agent.

7. (Original) The manufacturing method of a hydroxyapatite complex as set forth in claim 1, wherein:

the polymer-based material is a medical polymeric material.

8. (Original) The manufacturing method of a hydroxyapatite complex as set forth in claim 7, wherein:

the medical polymeric material is a silk fibroin.

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Previously Presented) A manufacturing method of a hydroxyapatite complex comprising a hydroxyapatite sintered compact and a polymer-based material, comprising the step of:

reacting the hydroxyapatite sintered compact with an isocyanate group of silk fibroin, so as to form a chemical bond.

19. (Cancelled)

20. (Cancelled)